

EXCELCHEM
Environmental Labs

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ELAP Certificate No. : 2119

10 August 2012

Calvin Yang

RWQC Central Valley

11020 Sun Center Dr. #200

Rancho Cordova, CA 95670

RE: MUN Evaluation

Work order number:1207335

Enclosed are the results of analyses for samples received by the laboratory on 07/26/12 15:50. All Quality Control results are within acceptable limits except where noted as a case narrative. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

John Somers, Lab Director

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670


Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CCY120724-10	1207335-01	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-11	1207335-02	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-12	1207335-03	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-13	1207335-04	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-14	1207335-05	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-15	1207335-06	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-16	1207335-07	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-17	1207335-08	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-18	1207335-09	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-04	1207335-10	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-05	1207335-11	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-20	1207335-12	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-21	1207335-13	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-22	1207335-14	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-23	1207335-15	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-24	1207335-16	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-25	1207335-17	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-26	1207335-18	Water	07/24/12 08:00	07/26/12 15:50
CCY120724-27	1207335-19	Water	07/24/12 08:00	07/26/12 15:50

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Laboratory Representative

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RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-10 1207335-01 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	170	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	1340	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	2.8	10.0	1.0	"	1	"	"	"	"	J
Boron	208	50.0	0.8	"	1	"	"	"	"	
Calcium	30800	100	79.0	"	1	"	"	"	"	
Iron	1600	20.0	11.5	"	1	"	"	"	"	
Magnesium	21700	50.0	15.6	"	1	"	"	"	"	
Manganese	180	10.0	0.6	"	1	"	"	"	"	
Sodium	41600	200	120	"	1	"	"	"	"	

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Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-11 1207335-02 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	260	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	204	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	8.1	10.0	1.0	"	1	"	"	"	"	J
Boron	399	50.0	0.8	"	1	"	"	"	"	
Calcium	45800	100	79.0	"	1	"	"	"	"	
Iron	386	20.0	11.5	"	1	"	"	"	"	
Magnesium	35300	50.0	15.6	"	1	"	"	"	"	
Manganese	241	10.0	0.6	"	1	"	"	"	"	
Sodium	97600	200	120	"	1	"	"	"	"	

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Project: MUN Evaluation
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Date Reported:
08/10/12 16:36

CCY120724-12 1207335-03 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	77	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	ND	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	ND	10.0	1.0	"	1	"	"	"	"	
Boron	368	50.0	0.8	"	1	"	"	"	"	
Calcium	14400	100	79.0	"	1	"	"	"	"	
Iron	ND	20.0	11.5	"	1	"	"	"	"	
Magnesium	10100	50.0	15.6	"	1	"	"	"	"	
Manganese	0.6	10.0	0.6	"	1	"	"	"	"	J
Sodium	146000	200	120	"	1	"	"	"	"	

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Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-13 1207335-04 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	410	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	3110	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	13.1	10.0	1.0	"	1	"	"	"	"	
Boron	974	50.0	0.8	"	1	"	"	"	"	
Calcium	71500	100	79.0	"	1	"	"	"	"	
Iron	2660	20.0	11.5	"	1	"	"	"	"	
Magnesium	55700	50.0	15.6	"	1	"	"	"	"	
Manganese	471	10.0	0.6	"	1	"	"	"	"	

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Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36


CCY120724-13 1207335-04RE1 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Total Recoverable Metals

Sodium	269000	2000	1200	ug/l	10	AVH0003	07/31/12	08/01/12	EPA 200.7	
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Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-14 1207335-05 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	280	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC
Total Recoverable Metals									
Aluminum	298	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7
Arsenic	14.0	10.0	1.0	"	1	"	"	"	"
Boron	505	50.0	0.8	"	1	"	"	"	"
Calcium	48400	100	79.0	"	1	"	"	"	"
Iron	483	20.0	11.5	"	1	"	"	"	"
Magnesium	38800	50.0	15.6	"	1	"	"	"	"
Manganese	154	10.0	0.6	"	1	"	"	"	"
Sodium	134000	200	120	"	1	"	"	"	"

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Project Number: 10-026-150-0
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Date Reported:
08/10/12 16:36

CCY120724-15 1207335-06 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	230	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	188	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	9.4	10.0	1.0	"	1	"	"	"	"	J
Boron	518	50.0	0.8	"	1	"	"	"	"	
Calcium	39400	100	79.0	"	1	"	"	"	"	
Iron	257	20.0	11.5	"	1	"	"	"	"	
Magnesium	31700	50.0	15.6	"	1	"	"	"	"	
Manganese	133	10.0	0.6	"	1	"	"	"	"	
Sodium	152000	200	120	"	1	"	"	"	"	

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Date Reported:
08/10/12 16:36

CCY120724-16 1207335-07 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	260	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	357	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	7.3	10.0	1.0	"	1	"	"	"	"	J
Boron	410	50.0	0.8	"	1	"	"	"	"	
Calcium	45600	100	79.0	"	1	"	"	"	"	
Iron	565	20.0	11.5	"	1	"	"	"	"	
Magnesium	35200	50.0	15.6	"	1	"	"	"	"	
Manganese	286	10.0	0.6	"	1	"	"	"	"	
Sodium	95600	200	120	"	1	"	"	"	"	

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Date Reported:
08/10/12 16:36

CCY120724-17 1207335-08 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	260	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	363	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	6.9	10.0	1.0	"	1	"	"	"	"	J
Boron	431	50.0	0.8	"	1	"	"	"	"	
Calcium	45500	100	79.0	"	1	"	"	"	"	
Iron	576	20.0	11.5	"	1	"	"	"	"	
Magnesium	35600	50.0	15.6	"	1	"	"	"	"	
Manganese	259	10.0	0.6	"	1	"	"	"	"	
Sodium	105000	200	120	"	1	"	"	"	"	

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Date Reported:
08/10/12 16:36

CCY120724-18 1207335-09 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	180	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	453	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	2.3	10.0	1.0	"	1	"	"	"	"	J
Boron	256	50.0	0.8	"	1	"	"	"	"	
Calcium	32800	100	79.0	"	1	"	"	"	"	
Iron	745	20.0	11.5	"	1	"	"	"	"	
Magnesium	23100	50.0	15.6	"	1	"	"	"	"	
Manganese	146	10.0	0.6	"	1	"	"	"	"	
Sodium	52900	200	120	"	1	"	"	"	"	

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Project Number: 10-026-150-0
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Date Reported:
08/10/12 16:36

CCY120724-04 1207335-10 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	160	1.0	1.0	N/A	0	AVH0017	08/02/12	08/02/12	CALC	
Total Recoverable Metals										
Aluminum	453	50.0	24.5	ug/l	1	AVH0003	07/31/12	08/01/12	EPA 200.7	
Arsenic	1.2	10.0	1.0	"	1	"	"	"	"	J
Boron	206	50.0	0.8	"	1	"	"	"	"	
Calcium	30600	100	79.0	"	1	"	"	"	"	
Iron	805	20.0	11.5	"	1	"	"	"	"	
Magnesium	21100	50.0	15.6	"	1	"	"	"	"	
Manganese	166	10.0	0.6	"	1	"	"	"	"	
Sodium	40800	200	120	"	1	"	"	"	"	

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Date Reported:
08/10/12 16:36

CCY120724-05 1207335-11 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	ND	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
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Total Recoverable Metals

Aluminum	ND	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	ND	10.0	1.0	"	1	"	"	"	"	
Boron	0.9	50.0	0.8	"	1	"	"	"	"	J
Calcium	ND	100	79.0	"	1	"	"	"	"	
Iron	ND	20.0	11.5	"	1	"	"	"	"	
Magnesium	ND	50.0	15.6	"	1	"	"	"	"	
Manganese	ND	10.0	0.6	"	1	"	"	"	"	
Sodium	ND	200	120	"	1	"	"	"	"	

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Date Reported:
08/10/12 16:36

CCY120724-20 1207335-12 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	200	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	47.6	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	J
Arsenic	1.6	10.0	1.0	"	1	"	"	"	"	J
Boron	254	50.0	0.8	"	1	"	"	"	"	
Calcium	33700	100	79.0	"	1	"	"	"	"	
Iron	ND	20.0	11.5	"	1	"	"	"	"	
Magnesium	27500	50.0	15.6	"	1	"	"	"	"	
Manganese	1.4	10.0	0.6	"	1	"	"	"	"	J
Sodium	98900	200	120	"	1	"	"	"	"	

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Date Reported:
08/10/12 16:36

CCY120724-21 1207335-13 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	140	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	773	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	1.3	10.0	1.0	"	1	"	"	"	"	J
Boron	172	50.0	0.8	"	1	"	"	"	"	
Calcium	22800	100	79.0	"	1	"	"	"	"	
Iron	1340	20.0	11.5	"	1	"	"	"	"	
Magnesium	20000	50.0	15.6	"	1	"	"	"	"	
Manganese	117	10.0	0.6	"	1	"	"	"	"	
Sodium	34600	200	120	"	1	"	"	"	"	

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08/10/12 16:36

CCY120724-22 1207335-14 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	140	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	353	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	1.0	10.0	1.0	"	1	"	"	"	"	J
Boron	177	50.0	0.8	"	1	"	"	"	"	
Calcium	23000	100	79.0	"	1	"	"	"	"	
Iron	857	20.0	11.5	"	1	"	"	"	"	
Magnesium	20000	50.0	15.6	"	1	"	"	"	"	
Manganese	102	10.0	0.6	"	1	"	"	"	"	
Sodium	39600	200	120	"	1	"	"	"	"	

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Date Reported:
08/10/12 16:36

CCY120724-23 1207335-15 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	130	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	259	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	3.1	10.0	1.0	"	1	"	"	"	"	J
Boron	237	50.0	0.8	"	1	"	"	"	"	
Calcium	20600	100	79.0	"	1	"	"	"	"	
Iron	1190	20.0	11.5	"	1	"	"	"	"	
Magnesium	19600	50.0	15.6	"	1	"	"	"	"	
Manganese	304	10.0	0.6	"	1	"	"	"	"	
Sodium	38500	200	120	"	1	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-24 1207335-16 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	160	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	250	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	3.2	10.0	1.0	"	1	"	"	"	"	J
Boron	105	50.0	0.8	"	1	"	"	"	"	
Calcium	28000	100	79.0	"	1	"	"	"	"	
Iron	545	20.0	11.5	"	1	"	"	"	"	
Magnesium	21400	50.0	15.6	"	1	"	"	"	"	
Manganese	118	10.0	0.6	"	1	"	"	"	"	
Sodium	15700	200	120	"	1	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-25 1207335-17 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	210	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	462	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	3.4	10.0	1.0	"	1	"	"	"	"	J
Boron	144	50.0	0.8	"	1	"	"	"	"	
Calcium	34300	100	79.0	"	1	"	"	"	"	
Iron	1370	20.0	11.5	"	1	"	"	"	"	
Magnesium	29200	50.0	15.6	"	1	"	"	"	"	
Manganese	446	10.0	0.6	"	1	"	"	"	"	
Sodium	17900	200	120	"	1	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-26 1207335-18 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	120	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	229	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	2.8	10.0	1.0	"	1	"	"	"	"	J
Boron	214	50.0	0.8	"	1	"	"	"	"	
Calcium	20000	100	79.0	"	1	"	"	"	"	
Iron	614	20.0	11.5	"	1	"	"	"	"	
Magnesium	16100	50.0	15.6	"	1	"	"	"	"	
Manganese	82.7	10.0	0.6	"	1	"	"	"	"	
Sodium	35600	200	120	"	1	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

CCY120724-27 1207335-19 (Water)

Analyte	Result	Reporting Limit	MDL	Units	DF	Batch	Date Prepared	Date Analyzed	Method	Notes
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Wet Chemistry

Total Hardness	110	1.0	1.0	N/A	0	AVH0053	08/06/12	08/06/12	CALC	
Total Recoverable Metals										
Aluminum	276	50.0	24.5	ug/l	1	AVH0018	08/02/12	08/03/12	EPA 200.7	
Arsenic	1.3	10.0	1.0	"	1	"	"	"	"	J
Boron	146	50.0	0.8	"	1	"	"	"	"	
Calcium	22200	100	79.0	"	1	"	"	"	"	
Iron	644	20.0	11.5	"	1	"	"	"	"	
Magnesium	12500	50.0	15.6	"	1	"	"	"	"	
Manganese	71.6	10.0	0.6	"	1	"	"	"	"	
Sodium	30800	200	120	"	1	"	"	"	"	

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch AVH0003 - EPA 200.7

Blank (AVH0003-BLK1)

Prepared: 07/31/12 Analyzed: 08/01/12

Aluminum	ND	50.0	24.5	ug/l
Boron	ND	50.0	0.8	"
Arsenic	ND	10.0	1.0	"
Calcium	ND	100	79.0	"
Iron	ND	20.0	11.5	"
Magnesium	ND	50.0	15.6	"
Manganese	ND	10.0	0.6	"
Sodium	ND	200	120	"

LCS (AVH0003-BS1)

Prepared: 07/31/12 Analyzed: 08/01/12


Aluminum	987	50.0	24.5	ug/l	1000	98.7	85-115
Boron	947	50.0	0.8	"	1000	94.7	85-115
Arsenic	970	10.0	1.0	"	1000	97.0	85-115
Calcium	997	100	79.0	"	1000	99.7	85-115
Iron	1020	20.0	11.5	"	1000	102	85-115
Magnesium	991	50.0	15.6	"	1000	99.1	85-115
Manganese	989	10.0	0.6	"	1000	98.9	85-115
Sodium	987	200	120	"	1000	98.7	85-115

LCS Dup (AVH0003-BSD1)

Prepared: 07/31/12 Analyzed: 08/01/12

Aluminum	1020	50.0	24.5	ug/l	1000	102	85-115	2.87	20
Boron	1020	50.0	0.8	"	1000	102	85-115	7.79	20
Arsenic	968	10.0	1.0	"	1000	96.8	85-115	0.196	20
Calcium	988	100	79.0	"	1000	98.8	85-115	0.927	20
Iron	1020	20.0	11.5	"	1000	102	85-115	0.00	20
Magnesium	986	50.0	15.6	"	1000	98.6	85-115	0.445	20
Manganese	975	10.0	0.6	"	1000	97.5	85-115	1.41	20
Sodium	1000	200	120	"	1000	100	85-115	1.84	20

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch AVH0003 - EPA 200.7

Matrix Spike (AVH0003-MS1)

Source: 1207335-10

Prepared: 07/31/12 Analyzed: 08/01/12

Aluminum	1500	50.0	24.5	ug/l	1000	453	105	75-125			
Boron	1190	50.0	0.8	"	1000	206	98.0	75-125			
Arsenic	997	10.0	1.0	"	1000	1.20	99.6	75-125			
Calcium	32000	100	79.0	"	1000	30600	145	75-125			QL-01
Iron	1890	20.0	11.5	"	1000	805	108	75-125			
Magnesium	22600	50.0	15.6	"	1000	21100	145	75-125			QL-01
Manganese	1140	10.0	0.6	"	1000	166	97.4	75-125			
Sodium	43000	200	120	"	1000	40800	215	75-125			QL-01

Matrix Spike Dup (AVH0003-MSD1)

Source: 1207335-10

Prepared: 07/31/12 Analyzed: 08/01/12

Aluminum	1590	50.0	24.5	ug/l	1000	453	114	75-125	5.43	25	
Boron	1180	50.0	0.8	"	1000	206	97.7	75-125	0.253	25	
Arsenic	1000	10.0	1.0	"	1000	1.20	100	75-125	0.380	25	
Calcium	32100	100	79.0	"	1000	30600	151	75-125	0.187	25	QL-01
Iron	1990	20.0	11.5	"	1000	805	119	75-125	5.57	25	
Magnesium	22700	50.0	15.6	"	1000	21100	153	75-125	0.354	25	QL-01
Manganese	1140	10.0	0.6	"	1000	166	97.6	75-125	0.175	25	
Sodium	43100	200	120	"	1000	40800	221	75-125	0.139	25	QL-01


Batch AVH0018 - EPA 200.7

Blank (AVH0018-BLK1)

Prepared: 08/02/12 Analyzed: 08/03/12

Aluminum	41.6	50.0	24.5	ug/l							J
Boron	1.20	50.0	0.8	"							J
Arsenic	ND	10.0	1.0	"							
Calcium	ND	100	79.0	"							
Iron	ND	20.0	11.5	"							
Magnesium	ND	50.0	15.6	"							
Manganese	ND	10.0	0.6	"							
Sodium	ND	200	120	"							

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch AVH0018 - EPA 200.7

LCS (AVH0018-BS1)

Prepared: 08/02/12 Analyzed: 08/03/12

Boron	993	50.0	0.8	ug/l	1000		99.3	85-115			
Aluminum	908	50.0	24.5	"	1000		90.8	85-115			
Arsenic	967	10.0	1.0	"	1000		96.7	85-115			
Calcium	1080	100	79.0	"	1000		108	85-115			
Iron	1000	20.0	11.5	"	1000		100	85-115			
Magnesium	982	50.0	15.6	"	1000		98.2	85-115			
Manganese	1010	10.0	0.6	"	1000		101	85-115			
Sodium	1100	200	120	"	1000		110	85-115			

LCS Dup (AVH0018-BS1)

Prepared: 08/02/12 Analyzed: 08/03/12

Boron	1000	50.0	0.8	ug/l	1000		100	85-115	0.662	20	
Aluminum	913	50.0	24.5	"	1000		91.3	85-115	0.549	20	
Arsenic	967	10.0	1.0	"	1000		96.7	85-115	0.0621	20	
Calcium	990	100	79.0	"	1000		99.0	85-115	8.52	20	
Iron	991	20.0	11.5	"	1000		99.1	85-115	0.844	20	
Magnesium	987	50.0	15.6	"	1000		98.7	85-115	0.498	20	
Manganese	1010	10.0	0.6	"	1000		101	85-115	0.297	20	
Sodium	1070	200	120	"	1000		107	85-115	3.04	20	


Matrix Spike (AVH0018-MS1)

Source: 1207335-11

Prepared: 08/02/12 Analyzed: 08/03/12

Boron	993	50.0	0.8	ug/l	1000	0.900	99.2	75-125			
Aluminum	902	50.0	24.5	"	1000	ND	90.2	75-125			
Arsenic	964	10.0	1.0	"	1000	ND	96.4	75-125			
Calcium	1010	100	79.0	"	1000	ND	101	75-125			
Iron	987	20.0	11.5	"	1000	ND	98.7	75-125			
Magnesium	984	50.0	15.6	"	1000	ND	98.4	75-125			
Manganese	1000	10.0	0.6	"	1000	ND	100	75-125			
Sodium	1050	200	120	"	1000	ND	105	75-125			

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

Total Recoverable Metals - Quality Control

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch AVH0018 - EPA 200.7

Matrix Spike Dup (AVH0018-MSD1)

Source: 1207335-11

Prepared: 08/02/12 Analyzed: 08/03/12

Aluminum	924	50.0	24.5	ug/l	1000	ND	92.4	75-125	2.45	25	
Boron	996	50.0	0.8	"	1000	0.900	99.5	75-125	0.292	25	
Arsenic	965	10.0	1.0	"	1000	ND	96.5	75-125	0.0933	25	
Calcium	984	100	79.0	"	1000	ND	98.4	75-125	2.38	25	
Iron	987	20.0	11.5	"	1000	ND	98.7	75-125	0.0203	25	
Magnesium	982	50.0	15.6	"	1000	ND	98.2	75-125	0.224	25	
Manganese	1010	10.0	0.6	"	1000	ND	101	75-125	0.596	25	
Sodium	1000	200	120	"	1000	ND	100	75-125	5.30	25	

Excelchem Environmental Lab.



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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

Notes and Definitions

QL-01 Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.

J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).

ND Analyte not detected at reporting limit.

NR Not reported

Analysis Method

EPA 8260, EPA 8021/8015M

EPA 8270, EPA 8081, EPA 8082, EPA 8141, EPA 8015M (extractable)

Metals

TCLP

Not Specified

Prep Method

EPA 5030B

Water - EPA 3510C, Soil- EPA 3550B

Water- 3005A, Soil- 3050B

EPA 1311

Same as Analysis Method

Excelchem Environmental Lab.



Laboratory Representative

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Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

Excelchem Environmental Labs		1133 W. Sunset Blvd. Suite A Roslindale, CA 95755 Ph: 916-543-4445 Fax: 916-543-4449		CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST	
Project Manager: Calvin Yang, Leticia Valadez		Project Name: MUN Evaluation		Electronic Data Deliverables Request: <input type="checkbox"/> PDF <input type="checkbox"/> Geotracker (radius) <input type="checkbox"/> Other (please specify)	
Company/Address: Central Valley Regional Water Quality Control Board Sun Center Drive Suite #200 Rancho Cordova, CA 95670		Project Number: 10-026-150-0		Email Address: ccyang@waterboards.ca.gov lvaladez@waterboards.ca.gov	
Sample ID	Date	Time	Container	Method Preserved	Matrix
CCY120724-10	7/24/2012		PLASTIC	X	AIR
CCY120724-11	7/24/2012		X	X	SOIL
CCY120724-12	7/24/2012		X	X	WATER
CCY120724-13	7/24/2012		X	X	OTHER
CCY120724-14	7/24/2012		X	X	NO
CCY120724-15	7/24/2012		X	X	NO
CCY120724-16	7/24/2012		X	X	NO
CCY120724-17	7/24/2012		X	X	NO
CCY120724-18	7/24/2012		X	X	NO
CCY120724-04	7/24/2012		X	X	NO
CCY120724-05	7/24/2012		X	X	NO
CCY120724-20	7/24/2012		X	X	NO
CCY120724-21	7/24/2012		X	X	NO
CCY120724-22	7/24/2012		X	X	NO
CCY120724-23	7/24/2012		X	X	NO
CCY120724-24	7/24/2012		X	X	NO
CCY120724-25	7/24/2012		X	X	NO
CCY120724-26	7/24/2012		X	X	NO
CCY120724-27	7/24/2012		X	X	NO
Relinquished by (signature and print): Calvin Yang			Date: 7/24/12	Time: 1550	Received by Laboratory (signature and print): Calvin Yang
Relinquished by (signature and print): Calvin Yang			Date: 7/24/12	Time: 1550	Received by Laboratory (signature and print): Calvin Yang
Remarks/Condition of Sample:					Bill To: Leticia Valadez, Central Valley Regional Water Quality Control Board

Excelchem Environmental Lab.

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Laboratory Representative

Excelchem Environmental Labs

RWQC Central Valley
11020 Sun Center Dr. #200
Rancho Cordova, CA 95670

Project: MUN Evaluation
Project Number: 10-026-150-0
Project Manager: Calvin Yang

Date Reported:
08/10/12 16:36

Sample Integrity

WORK ORDER 1207335

Date Received: 7/26/12

Section 1 – Sample Arrival Info.

Sample Transport: ONTRAC UPS USPS Walk-In EXCELCHEM Courier Fed-Ex Other: _____
Transported In: Ice Chest Box Hand
Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other: _____
Has chilling process begun? Y N Samples Received: Chilled to Touch / Ambient / On Ice
Temperature of Samples (°C): 15 Ice Chest Temperature(s) (°C): 14

Section 2 – Bottle/Analysis Info.

	Yes	No	N/A	Comments
Did all bottles arrive unbroken and intact?	<input checked="" type="checkbox"/>			
Did all bottle labels agree with COC?			<input checked="" type="checkbox"/>	* No labels, sample ID written
Were correct containers used for the tests requested?	<input checked="" type="checkbox"/>			
Were correct preservations used for the tests requested?	<input checked="" type="checkbox"/>			* No time on bottle or COC, using default time 0800
Was a sufficient amount of sample sent for tests indicated?	<input checked="" type="checkbox"/>			
Were bubbles present in VOA Vials?: (Volatile Methods Only)			<input checked="" type="checkbox"/>	

Section 3 – Summa/Flow regulator Info.

Used Summa#:

Unused Summa#:

Cleaning Summa#:

Regulator#:

Was there any visual damage to summa canisters or flow regulators? Explain.

Section 4 – COC Info.

	Completed		Info From Container	Completed		Comments
	Yes	No		Yes	No	
Was COC Received	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Date Sampled	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Time Sampled	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Sample ID	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
Rush TAT		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Analysis Requested				<input checked="" type="checkbox"/>		
Samples arrived within holding time				<input checked="" type="checkbox"/>		
Any hold times less than 72 hrs					<input checked="" type="checkbox"/>	
Client Name				<input checked="" type="checkbox"/>		
Address/Telephone #				<input checked="" type="checkbox"/>		

Section 5 – Comments / Discrepancies

Was Client notified of discrepancies: Yes No N/A Notified by:

Explanations / Comments:

Samples Labeled by: Jason
Bin #: P9
COC Scanned/Attached by: Jason
Sample labels reviewed by: _____

Filled Jason Jule
Out by:

Date: 7/26/12
Time: 1550

Excelchem Environmental Lab.



Laboratory Representative

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